

Hawaii
Australia
New Zealand.

H.S. Ladd

25.

BERNICE P. BISHOP MUSEUM
HONOLULU, HAWAII

FIELD NOTE BOOK

102
Bernice P. Bishop Museum
Honolulu, Hawaii

FIELD NOTE BOOK

Subject: Geology

Locality: Hawaiian Ids., Australia (p. 30),
New Zealand (p. 59)

Member of Staff: A. H. Ladd

Date: Nov-Dec 1925

Memo - 30± species
Hanauma Bay Collecting Dec. 1, 1925
On fringing reef exclusive of shore rocks & beach
6 coral - fossils all different
(made no special effort to collect coral)
3 corals - all appear to be same sp.
3 gast. - same sp.
1
1

Shore gastropods

Limpets - large - 2

" small - 13

Limpet ? - 1

black small 16

" mottled 11

spotted 7

splotched small 5

dark - medium 20

(H. crab) small white 1

7

2

1

Cowrie speckled 1

" mottled 1

green coral 2

- all above except 2 large limpets placed in

tins with without
water. " "

Memo - 30 ± specie

Hanauua Bay Collecting Dec. 1, 1925

On fringing reef exclusive of shore rocks & beach

6 coral - probably all different

(made no special effort to collect coral)

3 corals - all appear to be same sp.

3 gast. - same sp.

one. 1

1

Plus large number of old shells inhabited
by hermit crabs - ~~black~~ black sp. with orange bands
on legs.

alone Placed in pt. sq. jar - 3 corals separate
also hermit crab

Note - Camel box contain sp. from Koko
Head region collected Nov. 29 (Synd)
H. Laeld

Left with Palmer
all cores collected
at Warka - Dec 1925

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FIELD NOTE BOOK

Subject Geology

Locality Hawaiian Ids., Australia (part),
New Zealand (part)

Member of Staff A. H. Ladd

Date Nov-Dec 1925

Itinerary (see also L.G.S. Notebook). ~ Oahu Nov. 25 - Dec. 23 ~ Oahu 1925

Nov. 25. Am. - Misc. - short field trip.
26. Thanksgiving - Sightseeing.
27. - Office
28. Field - around Is.
29. Field - Koko head
30. Office

Dec. 1. " Hanauma Bay - Buff work.
2. Fish Work
3. Fish work
4. Office $\frac{1}{2}$ day
5. Field - near Alala Pt.
6. Office + fish work
7. Office + fish work
8. Office
9. Office
10. Office + fish work
11. Fish work
12. Field - Dr. Cooke in A.M.
13. Fish work and Field - E. on coral plain
14. Field - Waikiki reef and office
15. Vacation - married
16. " , passport, etc.
17. " , office
18. " , passport, etc.
19. " " "

20. Field + vacation
21. Office & Fish Work
22. Vacation and preparation to leave.
23. " "
24. Preparations to leave - sailed 7:00 P.M.

Totals:

1) Days in field ----- $6\frac{1}{2}$
2) " " office ----- $7\frac{1}{2}$
3) " on fish work ----- 5
4) " sightseeing and vacation- $1\frac{1}{2}$
and preparations to leave. $3\frac{1}{2}$

Days in Honolulu ----- 30

Nov. 25. Short field trip - see I.G.S. notebook 91-92.

Nov. 28. Auto Trip around Island - all day trip.

Started out in Palmer's car. Followed road leading up Nuuanu Valley - long grade to Nuuanu Pali. (2 pictures here). The road here passes through a deep notch in the Koolau Range. The power of the wind blowing through the notch is very great. It frequently takes off the top of towering trees. A steel cable along the cliff enables pedestrians to hold on!

From the road immediately beyond the crest of the divide we obtain a wonderful view of the ocean and the land intervening between the Koolau Range and the shore, also the cliffs to the NW.

Rivers cut the breast at a number of places along the road.

The road in this section is nearly paved - an excellent road. Many small clumps of land are at the base of the pali. Here a new road (not shown on U.S.G.S. topog.) leads toward Waimanalo. Much of the low land here is covered with sugar cane. Driving in Waimanalo we took the old road back to the base of the Pali.

Rabbit Id (Manana Id) was seen. It lies

north of Makapuu Head which forms the eastern tip of Oahu. Rabbit Id appears as a semi-circular crater with its highest point to be of prevailing trade winds. It is an open crater & most of the lava was carried to the SW by the NE trades. This is generally true of all the old craters on Oahu.

Returning to the base of the Pali the flat-topped forest cliffs of the S.E. part of the Koolau Range are well shown. Palmer believes these steep flat-topped cliffs are due to the constant rainfall on sandstone units, resulting in many joints in the breccia. Some may be seen on a small scale on the side of island.

Returning to the base of the Pali the flat-topped forest cliffs of the S.E. part of the Koolau Range are well shown. Palmer believes these steep flat-topped cliffs are due to the constant rainfall on sandstone units, possibly resulting in many joints in the breccia. Some may be seen on a small scale on the side of island.

Picture of hatchet-headed mt (Puu Lou or one near it - see Palmer). Through deeply laterized cuts. Soil brilliant red or brown in color due to various oxides of iron. Palmer does not think much of Davis' recently

published opinion that the Koilan range is part of an enormous crater whose other side (if it ever existed) lies beneath the sea. Wonder what soundings show. It is highest to leeward all right.

west side of the northern tip of the island. We got the lower and examined Lithothamnion ref. There algae appear as rough concentric masses of ls. a foot + across. Corals comparatively rare. Myriads gastropods abundant but collecting on the whole be very poor. The tide is only about one foot a ss & this is probably the explanation. Bivalves collected from shell heap. Calc. sand is light brown in color & contains many shell fragments. The fusilier bench is well shown - it seems to indicate a lowering of sea level of about 15' in recent geologic past. W. & P. believe present sea level much less extreme recently.

extensive recovery.

along lithified sand dunes observed at several points along northern coast.

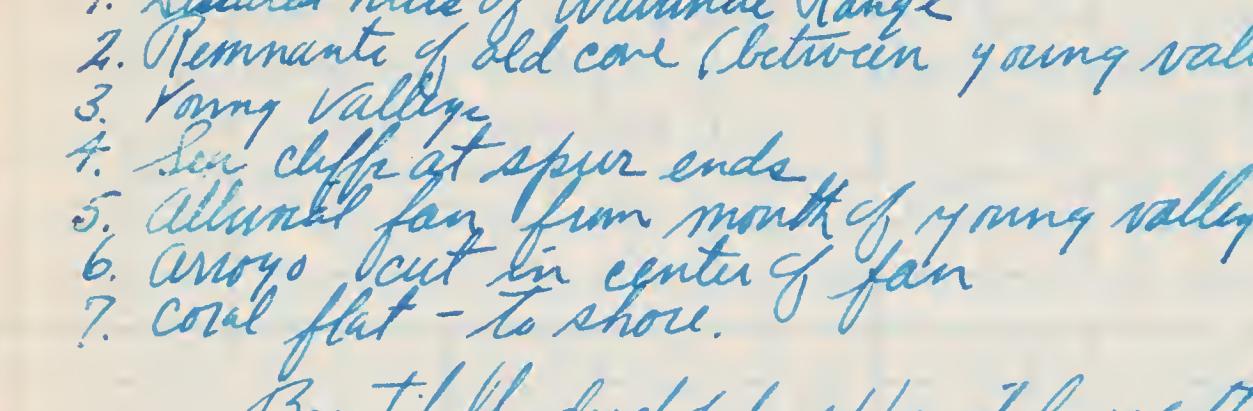
Picked up McLean (one of Palmer's students) & cut across island to Pearl Harbor. Then drove up across a youthful upland - great fine apple

country. Some of the water comes through a tunnel over 1000' long through Koolau Range.

may be seen - as follows:

↓
Directed Waianae Range
✓ surface of orange (together)

18 metral bell of Waimea River



Scarcely developed spheroidal weathering
in basalt seen near Waukakalqua Gulch.
Rock deeply weathered - all stages observable. While
only a few spherules remain in red-yellow-brown mass
the rock has the appearance of conglomerate or gravel.

Stopped at pumping sta. Saw Pearl Harbor, etc. -
on to Honolulu.

Bay Drove east from Honolulu along Manana
Bay beyond Kualoa Pond. Left car here &

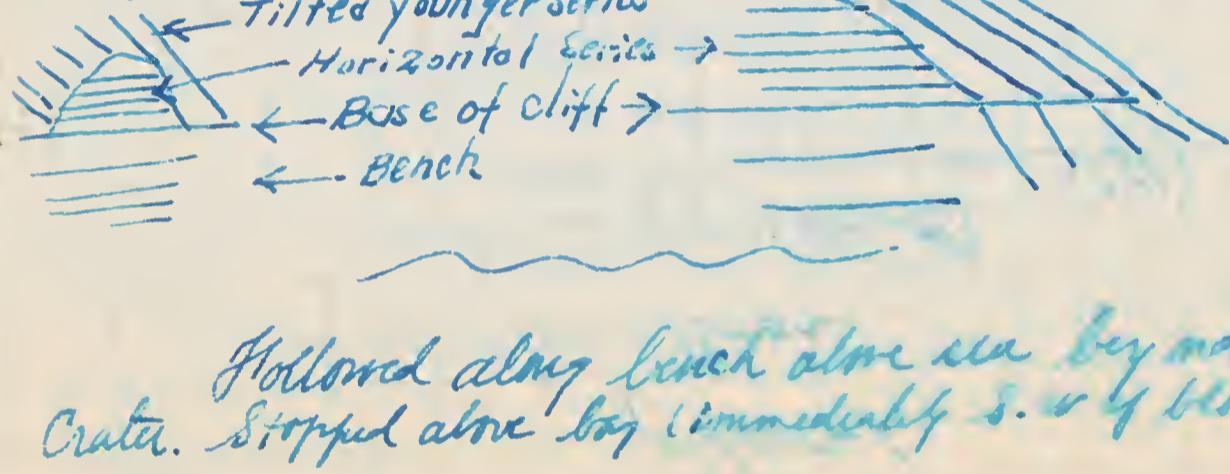
secondary road (see U. S. S. map). At a point at the head of Hanauma Bay (in ridge) we stopped to collect small augite nls. $\frac{1}{2}$ " + in length. The rock here is ash - badly weathered. In the loose stuff in the depression between the overlapping beds the nls are very abundant (see spec.). Before descending to the shore at the head of the Bay we observed a lava flow - brown

porous, rough material. This is one of the "14 points".
Along a line drawn almost straight from

Along a line drawn almost straight from Rabbit Is. on the NE to through Koko Crater to Koko Head on the SW. vulcanism is known to have broken out in at least 14 places. A number of these were seen & several closely examined during the course of the day. Koko Head, Koko Crater, Rabbit Is and a small unexamined crater (appearing as a hill on the U.S.S. Map) between the last 2 and largest.

Bay seen from above (picture). Decimated on N. edge - says bedded ash & lava flow at head of bay. Occasional large fragments of igneous rock & coral are found in ash. These were evidently blown from the walls of the conduit during the eruption. In many places they struck with such force as to depress the bedding planes noticeably.

edge. contact separate the older horizontal bed from the younger tilted bed. If the older ones were tilted it would look "just like the pictures in the text books"! The erosional bench is well developed here and the unconformity can be seen both in the vertical sea cliff and in the horizontal sparsely cut terrace. Small valleys cut in the horizontal series are seen filled with rocks of the younger series. Foothills or "windrows" are cut through the younger series exposing the older horizontal beds.



to eat lunch. An arid district with fantastic wind erosion. Blow hole caused by ~~indigenous~~

water force out air & spray & big wave cause
spout of water. At the such horizontal erosion
has caused up erosion of hole & much effectiveness
is lost.

at least 3 types of species (a) flat spined purple, b) round spined purple & c) round spined green. These make deep pits in rocks and seem to be an active and important agent in rock destruction. The only molluscs observed were some 9 or 10 sp of ~~gastropods~~ (1 large limpet, 2 Cypraea, 2 Murex-like sp, etc. see spec.). See ammonites rare. Coral frags abundant. The fauna in the strong surf must be rich. A poor coat compared to Fiji; acetate but better than that seen yesterday.

but still plastic lava. A small amount of ash on the leeward side may represent last spasm of small crater (Palmer) or may have come from Koko Crater (CKW).

From the crater a good view of Koko crater could be had - looking into it from the low windward rim also by looking in the opposite direction (NE) another of the "14 points" could be seen - a hump of lava with a "trace" of a central depression or crater.

On both of the above trips much beautiful and unusual vegetation was seen. The light green patches of the *cucurbit* tree stand out among the darker green of the other vegetation giving what McCoy has called "tapestry vegetation" - a clear descriptive term. 30

Dec. 1. ^{got} real reef work. To Koko Head region with Palmer & Stone. They left me at Hanauana Bay about 9:30 - worked there until 2:00 P.M. One can wade out on reef to its outer edge. The bay is only partly filled with coral - in between the more or less continuous patches are deeper sandy pools of various sizes. There seems to be very little ground coral. Had my glass-bottomed box & hence did not collect as much as I might have otherwise. *Conus*, *Cyprea*, etc. not common on reef. Quite a series of shore gastropods (mostly small). No polychaetes. Total of over 20 sp. gastropods and half a dozen corals.

Dec. 6.

With Palmer & Stokes to latter's country place near Alulu Pt. (something less than 1 mile NW of Pt.). Tramped about in morning & collected few things from raised reef (about 5-10' above high tide). Material well fossilized & abundant. A lot of similar stuff from rock material nearby. In some some of original color is retained. Saw much lithified sand sand, weathered bracts, etc.

Palmer believes that the reefs from which the corals (that now make up most of Koolau Range) came lie some distance north & east of present cliff. This formed an enormous dome (not a crater) part of which formed later leaving present remnant. It then is a fault scarp which has been eroded back some distance.

The depression now occupied by Kaelepula Pond is a drowned valley. The low scarp N.W. of the pond may

be (probably is) a sea cut cliff or a river cut cliff. The rock is lithified during sand - shore much undercutting forming caves. No elevated reef seen except along shore.

Dec. 12. Field trip in morning with Dr. Cooke.

Drove in his car up Manoa Valley & to point near top of Tantalus - hence to summit & around rim of the old crater. No rock is ~~mostly~~ exposed - well overgrown with vegetation - much grass & low underbrush, some trees - among them patches of native forest. This area is now a forest reserve and much planting is being done. Some years ago a shallow lake existed in the crater - now dry.

The purpose of the field trip was to introduce me to the methods of collecting land shells so that I may do this work successfully in Fiji. Shells were found in some abundance under various conditions. In general one should search in protected places - i.e. protected from sun & rain. The tree or arboreal species are found on the undersides of the leaves, especially where leaves are thick & closest. The underside of limbs & the bases of trunks are also good places - loose bark, cracks, & rubbish at foot of trunk. In low brush one must get down & look up - turn back leaves of various plants (especially thick broad ones), some ferns good - also back of petioles of leaves - where leaves join stems. Shells should be turned over. - Then & results.

It takes a practiced eye to pick out these shells & Dr. Cooke did most of the collecting - though improved after the first few minutes.

Land Snails in general are common in the tropics & not restricted to wet places as I had supposed. Many species are very restricted in their distribution. Most "species" have numerous varieties or "geographical races" that are exceedingly restricted - such one being characteristic of one hillside or even one tree (colonies). For example a given species may be distributed on one side of a ridge & restricted on the

other! Certain shell form (i.e. proportion of length to breadth, etc.) are very characteristic of limited areas. "Color forms" of a given species may be mapped! Then last are evidently rapidly-recurring mutations - offspring of a single individual for these shells are homoplactic - pugnacious most of the time. The many facts known about the distribution of land shells seem to show that they spread with exceeding slowness for it seems that many closely adjacent colonies have remained isolated by simple barriers long enough to develop definite character - in many cases of specific importance.

The distribution of these various "geographic races" on a single island ties up with the distribution of genera on different islands.

Thus in the Hawaiian group where the shells are fairly well known Dr. Cooke believes he can work out the sequence of separation of the different islands rather accurately - assuming that they were once connected - a belief that most scientists (at least most geologists!) do not hold.

Dr. Cooke does not believe in the "drift theory" nor any other of the same class.

He believes in land connections + states some remarkable evidence of distribution to back up his belief.

It is a pity that no one has succeeded as yet in raising land shells in the laboratory because such studies should throw valuable light on their migratory process, rate of mutation, etc.

It seems a strange fact that certain species have migrated all over the Pacific within the time of man.

Preparation -

Drown in water 12+ hours - then pull snails in extended condition. Place

in 40% alcohol for at least several hours. Clean - (pull large ones, squirt small ones).

Equipment
1/4 gross vials - 3 sizes { 1/2 gross 2 dram. bal. 144 $\frac{1}{2}$ (see box)

See Cooke. ✓ alcohol. (Ball's kit)
✓ latex.

Cook advises emersion in 50% alcohol after drowning. When shipping ~~drain~~ off alcohol + wrap label around bottle - pack well.

Sun Dec. 13.

With Palmer in afternoon to ^{EWCR} Ewa coral plain. Drove to Bot. Mus. Sta., parked car and walked toward the sea over rough

dead shell of thousands of land snails over the ground so that a handful of the loose stuff reminds one of the dry fauna at least as far as number are concerned. A few living specimens are to be found, around the bunches of low tree but the land snails practically disappear when the bulk of the vegetation has cut off. This was done fairly recently to grow sugar (2-4') & some plants still remain.

The coral rock itself is gray tough fl. - which on fresh surface is only an abundant except locally. Upon finding good blocks we sat down & cracked rock. Quite a fauna resulted. A rich & most abundant species (see species) coral, Opuntia, cactus, etc. also found. Curculio & Volucella were good results - some rock collected for this purpose.

Dec. 14 - Mon.

To Edmondson's lab at Waikiki. Collected on bringing up with Dr. Edmondson & Mr. Petergaard. Used a glass bottomed

box for the first time - will never go out
without one hereafter. Edmondson also
takes a short cruise with him. Saw
big corals set in cement blocks, & many
other support stars, sea cucumbers, corals,
corals, etc. etc. - best collecting thus far.
- especially good close to shore and along
rocky wall.

Looked over Oetegaard's collection of
gastropods. He is especially interested
in genus *Cyprea*. (And no wonder!).

Dec. 20. Trip to western side of Oahu with
Stoker - around southern edge of Waianae. -
mt. Good collecting along shore from
raised reef - see map. Eustatic bench well developed in
one place shore beautiful desert varnish - following
by coral sand.

Departed for Fiji Dec. 23rd

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Feb 23rd. Tues.
Arrived Sydney - landed at famous
Circular Quay about 1:30 P.M. To Metropole
& Australia but 10th were booked full
each double room at £1.10 including
breakfast, however, I had room & paid
£1.10 per day with breakfast. To go to the about
town, letter, to buy, etc.
- May 3rd 1906 - 11-1000 p.m.

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he was not in. Met Dr. Waterhouse (Economic - 3rd in div't) Dr. Brown (2nd in charge - Petrology) Dr. W. Woolenough (who is no longer connected with Univ.) & Mr. Osborne (or Osburn - a young chap newly appointed). Had long talk with Woolenough who approved my Fiji plane. Recommended careful working of Singatoka valley. He will deliver paper on Fiji & N. S.W. Ods. before I leave. He has worked a great deal on N. S.W. Ods. Discussed photography in Fiji - put film box in tea container - make double time for carrying film & camera - weight cotton & leather clothes - use Injul against this Grand. Write to him. Visit David or Prof. Emerton - no interview at all.

Woolenough gave me letter to Mr. E.C. Andrew, Govt. Geologist, Minus Dept. Sydney.

Mr. Dunn is Govt. paleontologist (yrs old)

routine man but not an enthusiast

or paleontologist has been done with paleontology

in N. S.W. That of Victoria worked up

better.

I'm to see Waterhouse Wed. - meet P. L. Cotton & Waterhouse brother (Agric. Dept.) who has had 2 yrs. in Fiji teaching them agriculture, etc. - kind of missionary. L. L. Waterhouse tel. 33916.

Am to see Tyassic fish & Insect wings from Deny shale at Brookdale - quarry - north of Fiji only.

Mr. Oelme wants H. indecite from Fiji - will send note.

All members very kind in suggesting

etc., etc. Sydney Univ. in building

but grounds are poorly cared

for. Am to see div't in detail wed.

Mar. 6th Sat.

Had about town till noon. Change of st. booking, got permit to land in N.Z., etc.

Are now booked on the "St. Klimaroa" (which is a 2 m. v. & 1200 ft. long)

at N. W. This is a 143 days boat - hence we go 1st & 2d. of extra each. She is a

much smaller boat than C.A. Linnece & this the roughest part of the trip for

Met K. K. Brown, Tami & another cap in the "Lima" -

In the "Lima" K. K. Brown took us across the bay to the botanical garden at Turongga Park. The gardens are situated on

the higher step st. hills rising from

the top winds back & forth across the hill with the

the loop - there one gets two views

lots of bar-ben cages. The entire grounds

are very well laid out & fully well

equipped. Their bar-fence are not as

carefully made as those in St. Luni but on the whole they are fair enough.

The collection of mammals & birds, etc. is

large & very interesting, but the

most beautiful of all were

the cages of brilliantly colored birds.

Back to flat & have tea after which

he & his wife took Mike & me to see

the only pub. - Guild himself a very comical

but not a very good one.

Mar. 7th

Left late. Official work of several

sorts & not so much time for

in P.M. for couple of hours. It is located, a light brown sandstone building on the east side of Hyde Park in College St. Their collection in the whole are complete well exhibited & well labeled. The arrangement might be improved in some ways & in the geological section the lighting is, very poor. Especially attractive are their mounted collections (birds etc.), Australian animals & birds, & their mounted special exhibits. Here they have a fine one of miscellaneon some labeled "Attack & Defence" - here are armored fish, porcupines, etc. Collection of "Australasian" marine invertebrates is very large & well labeled. Among the Australian animals the giant kangaroo (a restoration) over 15' tall, the wombat, fruit bat, kangaroo, wallaby, etc. are well done. The

our passengers are very good
It is the Sunday - Museum ~~for~~ ^{for} ~~for~~
2-5.

Among the mineral specimens was a series of casts of various Australian nuggets - including the "Welcome Stranger".

weighing over 1,000 oz.
Mon. Mar. 8.
Typed & sent letter to Gurney.
Called upon Mr. E. C. Andrews;

of introduction from Dr. W. M. Whistler
talked with him for an hour. Mentioned
his early paper on Fiji - regarded
them as justifiable attempts - for we
reputed. Give me a copy of his
Proc. Address to Royal Society 11. 800
last spring - A contribution to the
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Hypothesis of Coral Reef Formation. Received through Prof. He believes in erosion platform stable theory the Pleistocene in many areas. There is no Pleistocene in Viti Levu (accept end of Paleocene but not enough evidence to prove this). Below amorphous sediments as of Lau Group. Pleistocene which I believe were soft beds dotted rich coral is Tertiary. Would like to return to Fiji but is too busy with writing work to do this. If Palmer & I go to have he recommends Tuvatua, Thutia (Ciaia), Olaqila, Vanua Levu, Mago, to Koro. While in Fiji he did little in Viti Levu. He impresses me as a fairly capable man but I suspect

that he is not really enthusiastic
and research. Thanks a deal
about his position & the fact that
he does not have a Drs degree.
Finally exhibited photos of American
geologists (Sleator, Penruddock) duly
signed to him. Presented a bit
about his climbing achievement.
Pufford to know quite a bit about
America. As I left, I asked
me how long I had had my
degree, etc. I confessed to having
got a geologist. Said he did not
have degree - I vaguely
remarked that he "didn't need
one now" - he fairly purred!
Dale came for lunch, to
Museum of Natural History

Ex. 11. In J. M. Coulter's
"Geological Survey of
Michigan," middle
of 1st vol., geological
and topographic maps,

etc. the best sand are very
subsidue. The sand is thin
in the State. A large no. of
all Australia have a notice on it
to the effect that it is very macromelal
in large areas in the interior
are practically. Collections of such
are fine - Of Ordovician only
graptolites - or silvery carbon film.

Collection of fossils + opalized

material are beautiful - some

wonderful opalized fossils - most

of this from Victoria. (2)

Met Dr. Lawrence on street.

He come over in evening for

luncheon.

What long letter to Pop - stuff

about expenses. Tired for 3 hrs.

Stayed at home.

Up at 5:30 + to Belmont

by 7:00 have over me about

lunch + then headed south to

Bulli. Beautiful view from

"Bubble Point" - 1000 - to 1400' above

sea - sheer rock walls for hundreds

of feet - long train just through

intrusive village + block specks

in white surf are fallen - curving

brown beach, white surf, blue

water + red roofs of hundreds

of houses.

In a flunge on surf +

dinner in Bulli. Stopped inland

+ returned through Campbelltown, etc.

Atmosphere happy due to bush

fire. Every day very dry. The

country is peculiar - open bush

of short + white tree - like

low brush - all seem to have

burned at some time or

other. Burnt so often +

now to back.

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Wed. March 10.

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Up early, dressed at 6 A.M. and go from Circular House in Sydney. Came by train. The cars themselves lie over 100 miles west of Sydney. Our route for the first few hours lies a mile north of west. Our destination today was the tourist town of Katoomba which we reached shortly after noon.

The drive thus far has not been at all unusual from a scenic point of view. Most of the hills are low and gentle. Distant rain obscured by smoke from countless bush fires of all sizes. Road fair - day clear & rather warm.

Stopped for "morning tea" around at 11³⁰ a.m.

They call this area the
"Blue Mountains" - Blue Valley
would be a more appropriate
name. The blueness at the
present time is due chiefly to
smoke from bush fires.

Rock near Katoomba is
chiefly coarse ss. with ferruginous
slates. It is what a ~~thin~~ - seam
red & brown. There are some
bands of conglomerate containing
pebbles of clear, milky & smoky
quartz. Locally cong. also is
cemented by iron oxide. Its con-
sists are probably Triassic. Older
rocks may be exposed in
deep valley bottoms.

Passed much Triassic (?) shale

wrote from Sydney to Katoomba,

Then Little to C.R.R. notes etc.

Then Miss L.

With Mike over most of the

ground I traversed alone yesterday.

Back to hotel & check out.

On bus at 10⁰⁰ for Sutherland

line. Rained all morning at Blackheath

Most of the same type of

scenery as I'd seen about

Katoomba 1200' valley with

steep cliff faces & steep wooded

talus slopes below. Woods fairly

open due probably to bush fire

at fairly regular intervals. Several

specimens of gum tree make up most

of the forest - these are medium to large

& white trunk but (dark feel of).

Highest point on road in Blue

Mts. is 4,200' above sea height

Alt. of 4,800'. The

route taken by Mr. G. said to

be 4,000' above sea level, - about

18th & 20th March, steeply

ofly. Stopped at various mounts &
when we reached high pass on
the great plateau and found
fallow very much - finally
decided to come down and
climb over here 15 ft. -

Finally by steep winding road we
dropped 1500 in 5 miles & arrived
at cave & extra beautiful forest
which at comfort of such
place - and by high cliff /
caving through and on ahead.
Letter to Ray Marshall.

Fri. March 12.

Early morning walk to "Cave in
Arch" - found Sil. fossil slab, etc.
Picture & walk after breakfast
to "Dark Coach Hole", etc.

Through "Owend" cave in
the P.M. Trip took a little over
2 hours. The cave entirely beyond.

by force of description! It is
a nearly deserted cavern - dark
& minuscule. The lighting effects
add greatly to the cave beauty
cannot walk & stand enabled one
to traverse it in good cloth,
indeed efficient, not loud mouthed
& quite intelligent.

Crumb of Cave I prefer are not
large but are tortuous with many
steep ascents. On the whole the
cave floor seem to bear all
relation to the bedding planes of
the highly tilted ls. The cave
is interesting chiefly for the
abundance, delicacy, & color of
its stalactite features. In
many "rooms", say fifth cave
with a good shelf of calcite
stalactite, sheets & pillars are present
in several rooms. In addition

Cast out. Now cast your eye ⁵
to the - - this is what we
call - - gete my goat!

Beautiful broken exposure in
one out at one point.

Through "Left Imperial"
cave in 1 P.M. - a beautiful
cave but lacking the freshness
of the Quoit. - great variety
& splendid coloration in tones
of white, gray, brown, & red. The
lights certainly aid in showing
up the colors! Saw a small
shuttle & a few needles which
look like fibres a bit but these
seem to be very little of the
matter only on the older walls.
Abundant Alabystis in out at
one of the points. Some of
it posited motionless here & there
seen in air become soft

- some in flaky (gauze) direme
(latter is strontium carbonate).

Pulge before & after supper &
a bunch.

Sun. Mch. 14

Early morning climb to hill
top for fiction. 2 of willow & old
are quite tame way above about
Cedars house - very pale like
chipmunks of Long Peak.

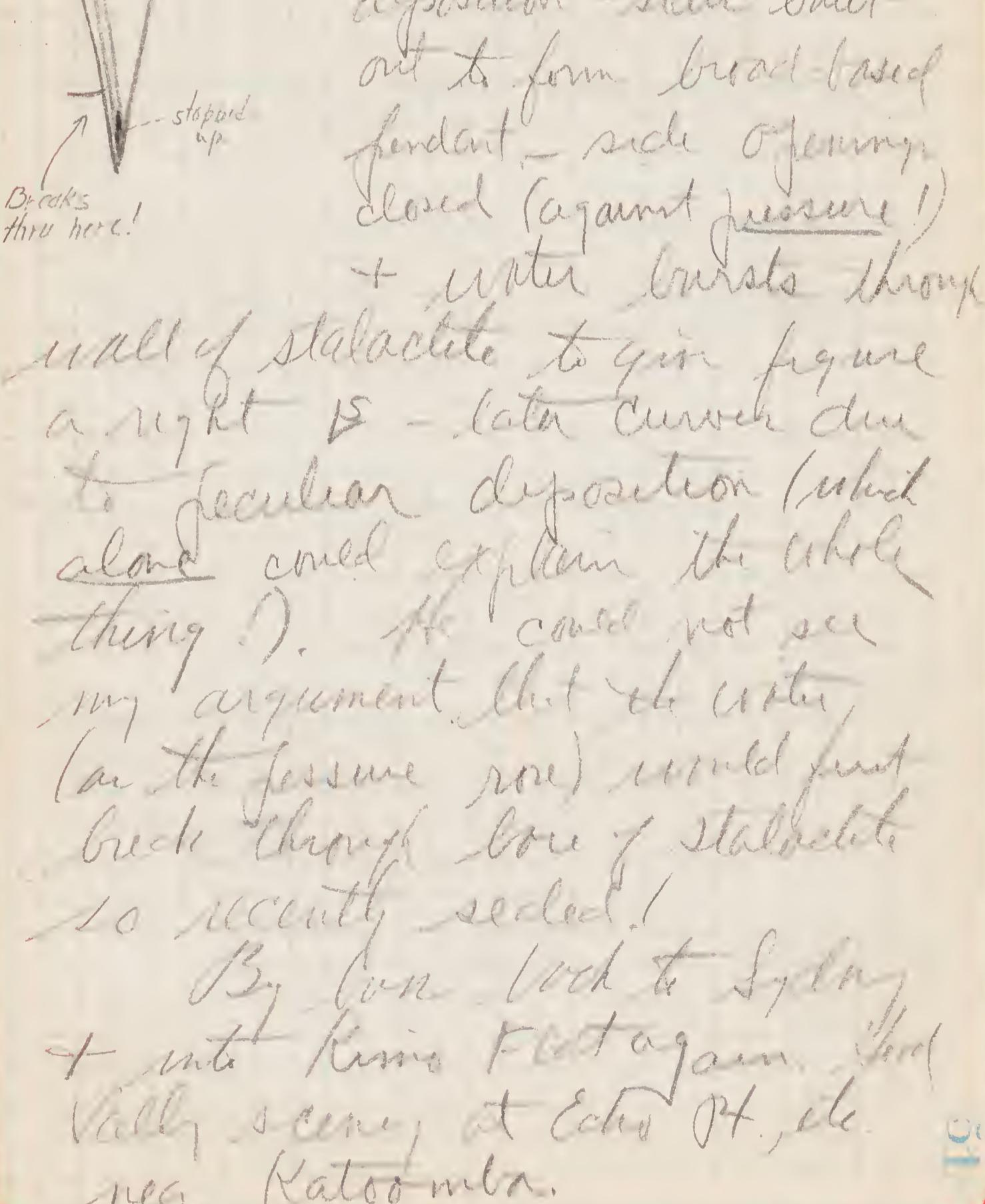
Also with fiction of fluting
in g.s. - the are very well developed
on hill top. Channel 1/2 to 1 m. t.
in width & perhaps 100 or 120 ft.
Intervening ledges very sharp they
are undoubtably due to solution
by almost fresh rain water they
now appear in flat or rounded
ridge but on exposed face
at 45° & of broken cliff to
Oahu.

Talk with ancient head guide,
Mr. Whybrik. And I had
introduced myself before as
a very amateur fellow with quite a
knowledge of geology, for one
not trained in the subject.
So I will give a date of
confidence (?) attitude, time when
he has been metamorphosed to
a mica schist (?) now the
carried. Intrusion seems 11 to
12000 ft. old.

Many fossils - Stromatopores,
Favosites, Habrites, crinoids
unname, etc.

His theories regarding the
origin of the "mystery figures" are
intriguing. He rightly says them
to peculiar crystallization
- his point is a peculiar

+ faulty modification - as follows.


A hand-drawn diagram of a stylized figure-eight shape. The top and bottom loops are labeled 'V' and 'V' respectively. The left side of the figure is labeled 'Brooks thru here!' and 'stopped up'. The right side is labeled 'stopped up by deposition' and 'Brooks thru here!'. The center of the figure is labeled 'A thin normal stalactite form - bottom sealed by deposition - side built out to form broad based pedestal - side opening closed (against pressure!) + water bursts through wall of stalactite to give figure a right S - like curve due to peculiar deposition (which alone could explain the whole thing!). He could not see my argument that the water (in the fissure now) would first break through base of stalactite so recently sealed!'.

Mon. March 15.

85

Spent about time in talk
& flying in P.M. Mr. & Mrs. Sage
& Mr. & Mrs. Watson were in town
for cards.

Tues. March 16.

To Belmont early & met Jim
Brownie who drove me south to
Lion Tail Company's plant at Enfield.
The works are located on the
right bank of the Cooks River
~~at~~ west of main part of town.
I spent the entire morning with
the manager Mr. J. Knowles
had lunch with him. Also met
one of company owners, Mr. K. etc.
Mr. K. is much interested in
his work, knows some geology
& is very capable. Plant is

old fashioned but seems to be
operated well.

The pit exposes about 20'
of rock. It is roughly oval in
outline & quite large. (Plant has
been in operation about 9 years).

The main floor of the pit
is composed of ^③ chocolate, gritty, well
bedded shale which contains
abundant plant remains in the
form of carbon impusions (at least
one fish has been found here). Locally
this shale is called brown lignite.

Underlying the shale is a 4'
foot of dolomitic material &
below this is ss. The latter is
exposed for 2' & Mr. K. says
he has drilled into second part
more. The ss. is soft & friable
composed of white yellow & tan
yellowish flakes of dolomite.

Greenish brown & angular - fairly
well bedded.

Superficial clay	
⑤	Siliceous layer
E	④ Mottled clay
③	Shale laminaritic materials
①	Sandstone

Sketch of portion of pit wall - Vert. scale 157.21

Above shale is main body of
Mottled clay which is brownish,
fine grained & contains few muscovite
flakes. Mottled color (black, grey, and
brown) due to iron, which however
is not present in sufficient
quantity to color an entire burn-
ing batch. Some 10-15' of this are
exposed. At the top is a hard
silicious layer, then at the

we find another, & one each, thin
layer are quite resistant.

Above the superficial clay becomes

more full of iron oxide.

No fossils were seen except
in the chalcocite shale. Locally the
main body of clay is well bedded
& contains considerable mica.

The outstanding characteristic
of the entire exposure is its variability,
(when compared to Paleozoic sea
beds).

The mica is fairly difficult.
The mica 10% of the superficial
clay with the mottled stuff (it gives
it color). This does not give it
enough for the entire burn. In fact
the top layer is too light in color & if he
burns them properly the bottom
ones are too dark & hence the
color does not have to be burned

a second time - placing them
on top of the second burn. If he
mixes too much of the coarse
clay with the rock - if he
mixes too much of the hard silicate
stuff they do not shrink properly
& are too porous. What he needs
is a coloring clay for the lower
burn & tile in each burn.
etc. etc. etc.

Plant.

Clay blasted, hand loaded into
barrow & wheeled to car - hauled
out of pit on cart & dumped into
a hopper - crushed in revolving circular
bin under the large white style
through floor of bin & is automatically
hauled aloft & mixed (coarse stuff
returning to crusher). Fed into
cylindrical mixer & squeezed out
in parallel blocks - these are cut

to proper length & removed
by hand. One block at a time
is fed to revolving press (each
press contains several dies) & stamped
out tile is removed by hand on a
wooden rock. Then stacked &
dried by hot air from below. Then
scrub with tempe & buried.
Bare colored tiles are glazed.

Net waste is about 14%
when it should be about 9%.
This due chiefly to difficulties with
clay and sand & kiln. Demand
for using blue has exceeded supply
& competition is not keen hence
the company can still operate at
a profit but not indefinitely.

Look for Kippel's to merge P. &
with the other plants to meet the
Sugars in the Judge Gamble
Prison - American Waller.

Wed. March 17. 23

To Sydney University in A.M.
Met Cotton & we who played
us about & took us to lunch.
Buildings are beautiful with
high arched ceilings, stained
glass windows & carved st.
Climbed to top of main tower
visited beautiful library & Great
Hall. Cotton, Underhouse, Oulbourn,
Miss Brown & West Mike
& J. Oulbourn to meet Mr. Dunn
share talk. To Mining Museum
Spent a part of afternoon with Curator
(a good mineralogist) Mr. Card.
Ollanet - good material.

Mr. & Mrs. Watson here for
supper - to see "White Cargo" played
- Mr. Leon Gordon ^{the} Author, here
the leading part - a splendid
play though the theme was rather
sordid.

Thur. March 18

Toapt to Long Reef with
Mr. ^{and} Osborne (See myographical
outline). Good day - not a
place for photographic studies
in marine erosion.

To Sydney Hill for dinner
spent with Mr. & Mrs. Watson

Fri. March 19

Went to a hotel in A.M.
Rained, etc. in afternoon. Watson
called in evening & took us to
Peter's Bar - very noisy however
where we had whisky but thought
not strong.

Sat. March 20

Left about 10:30 for home

8/12 at 7.8. I Uluruoo" of 9
F. (not Fisher). Wines, Sargos,
& Osborne at 8/12 to see us off
with colored steamer & best
wishes. Uluruoo in small steamer
but has gas & ventilation. We
are comfortably situated in a
2 bath bibby cabin.

8/13 cabin - worked on pictures in
water, etc. Stop at 9 M. Uluruoo had
lunch but ~~had~~ ^{had} & had ~~had~~ ^{had} etc.

Sun 8/13 Ch. 21

Cabin - up early - worked till
1030 on pictures, etc. - all up to date
now. Tipped these.

Boat and 3 sheets of
paper a couple of lines of poem &
a few more in memory.

Mon. 8/14 Ch. 22.

Tipped up more. Uluruoo
+ cabin and 3 sheets of paper

begin

Went to dinner, took 1000 ft.
(Anis) [] and continue
when I think we not think
this is big well, however, the
milk is very full quite a lot.

Tue 8/15 Ch. 23.

Tipped up (see 5th drift)
bank of Myerry & (lost pictures)
of lot to be had. Did that. Still
3000 in P.M.

Wed 8/16 Ch. 24.

Boat and 3 more all now
- no more lost out of with
uluruoo put out Anchored - got
Ran, till about noon. Uluruoo
passed + went up to engage a
new cabin Uluruoo was coming
at. Caught at Uluruoo
at 1300 (including 1000 ft.)
Tipped up + got anchor half
filled with sand + had
Cabin and 3 sheets of paper

Set off in boat on upper
Tiber at 35th

Spent all morning for
quarters & found flat on upper
Tiber for 35/- per week.

Spent a grand day town
- and back to bed.

Fr. 11th 26th

Rainy & dull all day. Home

at 2 PM. - Typing, etc. Rec. call
from Ch. - all well at home.

To King's chief & their
"Liberia France" of Whitney South
See Expedition. Mr. Beck not on
travel but met Mr. Grey (?) a
Portuguese collector. Later met Mr. Beck
that day. Met Beck later home
to good supper. Typing, etc. etc.

Set 11th 27

To call on Mr. Hartman,
Head keeper of Dept. of Geology
at University but Counter
letter of introduction from Prof.
Cotton. Mr. Hartman offered to
take us to lava cave on Mon.
& will have us out to have, etc.

To Natural Museum on
J. St. Mr. D'Uva is not here
so we saw Mr. Chapman but Mr.
Chapman is not here. Hartley
was in at time of my visit
However he has a fine collection
of Mexican Mounds - a huge
one cave 400' long & 75'
wide, floor covered of all sorts
stone implements, etc. Another
Woolsey offered us a very
full with some good
articles picked. Hartley
had a fine though collection

small, but lastly, ² a
smaller & rather pale
specimen of *Calymene*
but much larger & not
so well preserved
as the first. Small and rather
fragile specimen & an excellent
specimen showing about 9
fine lines with cracks. Most
of animals & fish in old fossil
mudstone. Many fossil shells
discovered.

To the Randolph Reservation
the top of the Mopane in the
middle cropping attitude.

Aug.

Sun Mch 28.

To the Mopane for
Ranftite, an oxidized crater iron
300 feet above surface in Andhra
bed. A beautiful crater with

very gentle slopes broken near
the top by small, rounded craters.
It is low, but we spent the
first couple of hours in collecting
marine mollusks along the shore.
Rough blocks of secondary block
lava make up the shore. Between
are filled with shelly mud. Cutting
excellent. Large number of red
brachiopods (Terebratula sp.) in
economic abundance of lava
blocks. Seen to be 2 species of shell
stone which probably are the
stony shells ^{composita} there may be much
coarse lime & gravel. Similar
but smaller than are described
by Nutting on Terebratula. The
brachiopods are Ascidia holothuria
a small star &c. Many shells
Terebratula, Ascidia holothuria
Many others, large & small.

5

dropped you high but went
on with a nose for flat ground
and found the following
small but well made a table
- on the flat ground. Some
black rocks & a group was left
there - went by following further
out, group of lava in following
note. Started off the ground
near at - few young plants
seen in sand ^{some} near base, bed (bedded)
No complete - just with some
clumps can accommodate themselves.

On to summit - good path about
in house with - lava flow
showing a surface well jointed
of with slope where solid
surface buckled - space vegetation
scattered. Probably all flow
and will stay low for a long
period - here black rock,

red ab. white, etc appear &
slope are of lava rock. Bedding
note. Descended into crater
after taking pictures. A few
ash beds are seen in lava, mostly
red & black rocks are upper
filled with bomb - lava specimen.
Little vegetation but much shrubby
here occurred.

P. cone? Main crater

↓ P. cone?

↓

Sold to go to see lava "cone"
but we have to take a walk
in sun & heat. Then our
tires representing old lava flow
- not hardened & light colored
flowed on - very thick. Saw
one flow which had been to
red flowered on it off - flow
standing shown

collected 3 blocks in crater, where
no vegetation & the few trees from
flat station slope.

Mon. March 29.

To town to help get my
laptop back, now & much
more rounded from long
-real straight through the
laptop back & found last
letter will come to get
Mr. Barbman at the University.
But Dinkins may go to Dr.
Scott's home where we were
conducted through lava cave.
The entrance is a hole in the
lawn! The caves are tube
like with rough walls.

Collected by Mr. Jenkins,
Pop. situation, while, etc. developed
In place floor in cavity
where a second floor broke
through & shifted in place.
The cave probably extends for
nearly $3\frac{1}{4}$ of a mile. The lava
came originally from the cone
now known as "the tree hill".

Home in evening.

Tue. March 30.

To museum for about two

or 3 hours - about two hours
afternoon trying to get old
lockups, etc.

To Barbman for supper
in evening. After jazz, lecture
of galaxy also attended. Met
Mr. D. who a very pleasant
lively person a bit better though
he still appears a bit old fashioned.

Home & writing the

3

Wed. April 3rd

Spent morning with
Fenton writing up his
account of Wilford & Carter's
Bay and just a little
complex faulting in shale &
sandstone of Nauman's group.
These 2 groups are not volcanic
& according to B. are added
directly to volcanic.

To museum in P.M. &
home to work till 9:30.

Thurs. April 4th

To museum where Mr.
Sifford introduced me to
new curator Mr. Archie, a
very pleasant young man who
gladly agreed to give me a
week in which to prepare my

specimens & give me a
vote to Dr. Glazier of the
fish which he took. All sold
out but scrappy stuff & no
treasure in the Men (a &
local fauna (extinct). Explanation
was a prolonged Easter celebration
here - all shops close for week
days!

Met Mr. A. H. B. Full at
his home. Mr. Full is a
commercial artist by profession &
an A. I. systematist & collector
of fish. Beautiful & complete
collections of modern mollusca
of all sorts. Also some Tertiary
fossils. Presented me with
shells & paper & promised
a big series of modern genera
will be given to identify &
check on all of my

Given modern stuff I still ¹³
give him duplicates. He
is evidently a very careful
& competent worker & I am
much impressed. His
drawings of specimens are
excellent. He has done a
lot of landscape painting.
Wrote, Paleozoic fossils.
Have an evening-visit

On April 4.

Wrote at home till noon.
To the field opposite Rangitoto
on the coast in PM. Collected
all afternoon. Good scene of
petrifaction, but nothing, no
brachiopods which are shown in
the way found were exactly
similar condition as they at Rangitoto
but outside, on Ophirland, where
the rocks at base are

On April 3rd

To Zoo in AM - met
Curator, Mr. Griffen, who showed
me through. Saw you here in
less than 3 yrs old but still
remarkably good & with fine
progress for future development.
Mr. Bryan had recently returned
from a trip to Africa, bringing
him a fine collection of animals.
Just well laid out & pays for
itself (I add the 3d children)
Polar bear not excellent. Saw
but off and about, perhaps in
a very sick state.

Wrote at this till late
after dinner.

On April 4.

Visited Rangitoto Island &

Wrote, Paleozoic fossils. This is a

base of the steep hill
which goes to the
summit about 1000 ft.
and above is a plateau
about 150-200 ft. high. Pictures
of snow & all about to top.
Picture

Now for rest of day - working
on these etc.

Mon. April 5th

To Museum & I worked
but no work on Friday
will continue. Long talk with
Mr. Beck of France in O.M.

My first impression of the much
misunderstood gentlemen are very favorable.
Spent all of day & evening on these
packing, etc. late to bed.

Tue. April 6th.

Packed specimens, etc.

Left to go to town
for wonderful trip on a motor
train till after dark. Blue in about
5:20 but see on how a very late.
Train dirty, dusty & filled with
spilling debris, etc. Many stops for
tea & refreshments. Broken spring
on 2nd engine also delayed us.

To Hamilton Hotel for good
accommodation - 45 each for day
and dinner, tea & etc. in "The
Hotel" - a very quiet & quiet town.
A street named "hail Cockabob"
as "the latest American craze" &
a very go-round goes under the
name of "montebello".

Wed. April 7th.

Left the hotel tea at 7:30
and I expect to be a long
time away from it. The station
is very busy and the day
we will be here will be

25

Rotomahana to the
bottom of the lake. The air
is filled with vapor, water
with vapor, by a bubbling
Hotspring. The water is filled
with Sulfurine Impurities.
The air is sulphurated with
50% H₂S steam.

Rotomahana to the sea
and we took boat to Whakatane
(or at sea Whakatane - b.)
Wh. being a small village
about 2 miles from town. The hills
of the foot are filled with
bubbling activity of sand and silt.
There are numerous bubbling

holes of all shapes, size &
color, some geyser and all
built terraced cone of silicate
inter. these gather and bubble
& steaming & hissing drops

as fast as we can eat
and really played during
our visit. There are hundreds
of steam vents. There also are
of all size shapes & colors. Most
of my work a copper has a
chip of stone very usually
without veins of veins & then
is a encrusted that has seen.
They are sand pots filled
with sand you may put about
one half full of water. Then
bubble slowly & boil & bubble
(the nature is that) the sand
pans with broken bubble pots
back with a "plop" - a sort of
water the sun is always baked
as the sand flowers. The sand
pans of broken pots & sand
smells

strongly between Whakatane paper

and I got Ford Range
driving a number of Maoris, one
doing their cooking over steam
pots & in instant hot water.

An old Maori village below where
the main stream flows has been
turned into an exhibit. Here one
sees a number of interesting articles
& the Maori work.

After the late luncheon we visited

about town, visited the stone

lighthouse, market, fish house,

etc.

In evening we attended a
Mosaic entertainment & were much
amused by the Haka & many
other scenes & songs (see program).

With many thanks to friends went
late to bed.

Thurs April 8th.

Rained at 9:30 & the

motor boat up, leaving the
town of Rotowua at the southeastern
tip of L. Rotowua (No. 1 of 6 lakes)
the motor boat is now fast
Whakera & the East Coast Range
around the eastern tip of the lake
& northward along the eastern shore.
had a view of Mokaua Is in
the R. Tauranga - our guide stated that
this is not a lighter. Reaching
eastward near the west end of
the lake we stopped Tuhure (not
a name). There is an interesting
area around the Whakera River
here a change of the place
was. Looked down into the
high hills, etc. On approach
saw a large bird - a large
Plover and a pair of albatross
sitting on the top of a rock. I quickly
caught up my net take which

1000 ft. of the road 8
above the road. - Went
uphill at Tikitiki, hit waterfall,
etc.

Went out from Tikitiki to shore
of L. Rotokai (small lake) right
over a Horse track, but C
back with me to famous
Hongi track and lake brought
me a few more tracks -
giant tree ferns etc. To Lake
Rotokai (5000' below) - a
small basin. Stopped at Hot
Springs - a sort of a
clear river water! To Lake Rotomah
a basin like the one back
but clearer.

Walking through Hongi track
we take a side trip to see
P. Okatenea⁵⁾, a beautiful baby
of which we saw 3

L. Rotokai & 1000 ft. of L. Tikitiki
The side of Rotokai are covered
in a profusion of magnificent
larch - just a small crater lake the
B. h. to main road &
return to Tikitiki along side road
and up to the Rotokai, a
crater lake.

Back to Rotokai road
note writing about 43°

On a way with Tikitiki
& early to bed

On April 9th

Took famous Government road to
the sum of Tikitiki up to the
Rotokai and about 10° 30'
& until 53° road. Then off
off road to the village
of Tikitiki, Tikitiki road to a
sort of small town village of
Te Whare (or Blue) Tikitiki
then a half of the Rotokai road

88

After the boat got
new names of Tarawera (left)
(+ th. to now), a collection of
rocks gathered near the eruption.
The rocks could easily pass
for old "glaciated lava", and added
nothing to the. Many were covered
by encrustation of white (silica?)
material. On the shore of Lake
Tarawera (SW corner) - here
a short distance away from the
shore on the road side could be
seen a thin stratum of carbonized
vegetation separating the Tarawera
deposit from the residue of previous
outbursts. Only a few a. t. of the
former here. Probably no lava
overlain the Tarawera lava.

Bombed launch + crowded later. T.
got us east + turning south then
narrow passage + down northern

N. side of Mt. Tarawera
village here. Good view of
Tarawera + its cliff, side
crater etc.

A short walk brings us to
north shore of L. Rotomahana
which is crossed by launch going
south + south west. Splendid view
of Tarawera, craters, small crater
along side of lake, bad land topography
steaming cliff, etc. Now cliff
water is boiling.

Spaced out on foot up nearly
to site of what was at one time
the world's largest geyser, Waimangu
Walk up is 2-2½ miles - many
hot springs, steam vents etc.
The site of Waimangu is now a
hot blue lake with a cliff just open
on the side toward what
was formerly "geyser, Waimangu".

Letter to you & coming back with
you back to London.

To get around the lake
- very careful & no mines.

Back to Rotuma by motor-boat
- but one under Tarawera natural
is possible for more distance
very useful. - just 60 miles
back went to see of Tarawera
eruption. Water by 3300 ft.

To Ohinemata and Rotuma
- Micron village when photographed
are not allowed, looking we them
out, etc. Great well beautiful
carriage & in fact a stream
bet between 2 groves!

To mud pools hot springs
& mud volcanoes nearly.

To "Puhitau" in sea.

Sat April 10

By train to Auckland.

Leave Rotuma at 9:30, 1000 ft.

Mt Royal after. Water May

paper to fit caldera of day

sun (1000 ft).

Wrote at home all day.

Mon April 11.

Marina taking on Geology
etc for balance of day gathering
specimens, working at Mt Royal
the Ridge with Miss Rendall
Mr Bellwood in all & getting
later.

Tues April 12

Went running about getting
to sailing. Saw Bradburn for
a few moments & took picture
of old town. Sailed about 500 fm
from Pukau Wharf on Geogia
Bank where will anchor
to the little.

85

Mon. Apr. 14
Left 10-11 a.m. with
the boat for breakfast. Then
had time to go swimming and
then up hill & back had an
hour in the dark and finally
arrived. But we will break
off here today.

Then Apr. 15

Left 6 & got into town, the
boat broken. Went to town, then
& Lander & Howell during day. Also
read Ch. Money, Money! (Book) &
enjoyed it some. While still not
dry but we will go for supper
tonight.

Very busy. To bring out of
Candy from Honolulu on next
with Mrs. Q. Orlans.

First letter - "Song of a sentimental
Bliss" by C. S. Dennis - Cornstalk
and Co. would like me to buy

Mon. Apr. 16

Left 6 a.m. usual letter to
Dill, etc. before breakfast. Am going
a letter of intro (to follow) to Mr.
S. J. Wilson who is from Bellmore
- going to Toronto to work the road
run down for work and to Buss.
and Lura about 3:30.

(See P.M.H. II)

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SUVA TO VANCOUVER

Fri. Apr. 3rd

Sailed about 3 p.m. on R.M.S.
"Magenta". Sea calm, good
accommodation. Long talk with
Hoffmeyer in evening.

Sat. Apr. 4th

Cloudy but went to walk
home & get 3rd today. Walked 9

in letters all day. Read
over for 1000 and
about 500 of documents

at Hoff & Wadley's
Mon. 17 - met with Bob
Good & Shuman - Hendley &
Hoff & Otergaard on 1000
in cult - met earlier

Mon. Sept. 18 -
Left early - don't
plan to get down to 1000
tomorrow - will tell
with Hoff & Wadley

Mon. Sept. 19 -
Worked on 1000
in Hoff & Wadley's
office - got for
Good & Shuman. Talked to H
Hoff & Wadley. Fall OK
today. See you when
Mon. 20 May - Hoff & Wadley

Mon. Sept. 20 -
Left for 1000. Also
just up to 1000. Also
in 1000

Mon. Sept. 21 -
Letter to Fisher, to be on
H. & W. Study in inventory later.
Talk with Shum, Hoff, Dickey &
Brooks in 1000. Also
still cult - with Hoff & Wadley
worker

Tues. Sept. 22 -
Final 1000 today - got
in 3000. Stayed on 1000
with Bob & Hendley to get
at 1000. Also got 1000
from Hoff & Wadley's
work with Hoff & Wadley's

Mon. Sept. 23 -
Worked on 1000. Also
met with Hoff & Wadley's
work with Hoff & Wadley's

Wednesday 8th

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Spent day at home
finishing & sleeping. Drove
around with wife & daughter
& son-in-law.

Then up at 9th

Spent time with W. H. H. -
had been sent a detailed
report of our mission

Spent 10th at the office -
Abraham - got dinner

Gregory & J. F. Dimmick
at dock. Cleared C. M. Stoff
& Gregory over Hoff & told
Mueller for conference -

like Gregory. Both talk
with Cooke & Schenck -

Shelton who joined them
had talk with Gregory

about my work - a very
satisfactory talk. Shelton
gave him summary etc. from
the OK on my going &

report of progress at C. S. A.

Ab. told Hoff & told
Hoff on back. He and

I think much of glad

they for sugar of back.

Well but their interpretation

of Oregon. Oregon is not
to appear in abstract

in C. S. A. Rule - Hoff

told to be your only

then sent on to Oregon

for publication in Am.

Am. Eng. Soc. of that a

PM. Cleared up with

in and regular to PM

to take full care of his

to end in Wash D. C. 13

next summer & of how
to travel on your mass
by Jan 1st 1928. Gave
me \$300⁰⁰ cash, promised to
pay all freight bills, &
photograph Little Red Gull
(up to \$100⁰⁰ for photo).

Map can be had elsewhere.

Well consider Wright
collected machine to
write me so on Jan
conveniences with Wright
Gull will be a collector
but temporarily.

Talk as though my
return to the part of world
is a certainty. I mentioned
New Hebrides plan - OK

to report having

land and during Glaciations

or compact will land

you on Feb 1st or 2nd.

Probably you now have

then - hence no land

but you for Plutocene man

to walk over!

Also a Saguinus

next working in P. G.

Talked skull stone about

skull - ~~to the little hole~~ -

now - not cleaned by

etc (not major) - in

indian not Indian (Teller)

only man - large gathered

& fragment about fist - foot

skull. Also have here

OK popular article - skull

in Accra \$10.

For you with Gull

& deer \$300⁰⁰, II. Niagara

to last year up to what

P.O. book to finally

order my 1st. (1927)

of Hawaii - Oahu may 24
to be clear tomorrow
for year now. My
return via Victoria Island
today at 11. Not had
anything to contribute an
English paper - so he
thinks

Met Blane yesterday
evening - Mr. Freeman
brought to ship

Stebell, Campbell, Gwyn
and Wong to see us off
- Photo for paper - & good
day to Hawaii - Impression

Felt well & pleasant
in evening

Sat Sept 11

Woke 7th and 8th

all morning. Took out

for walk. Saw 1000s &
large flight in evening.

Sun Sept 12

Studied and prepared
with Blane and day &
evening. Weather suddenly

cooled today - we are

blown 25° about noon.

Mon Sept 13

Studied in lot w/

and Blane. Wore a lot at

noon so evening.

Tues Sept 14

Studied in lot w/

and Blane. Wore a lot at

noon - but a lot at

Wed Sept 15

late & went R. T
connected to hotel for
night with Young &
Lyman. Found
former \$5.00

Tue Sept. 21st

Took R. T. for
Cedar Rapids

date in mid P. T.

98
100

